CLAIMS

1. A water-in-silicone oil emulsion comprising (i) in the range from 0.1 to 25% by weight of particles of metal oxide having a median particle volume diameter in dispersion in the range from 18 to 32 nm, (ii) 5 to 60% by weight of silicone oil, and (iii) greater than 20% by weight of water.

2. An emulsion according to claim 1 wherein the metal oxide is incorporated into the emulsion in the form of an aqueous dispersion.

3. An emulsion according to either one of claims 1 and 2 wherein the metal oxide particles are hydrophobic.

4. An emulsion according to any one of the preceding claims wherein the metal oxide particles comprise titanium dioxide.

5. An emulsion according to any one of the preceding claims wherein the mean length of the metal oxide particles is in the range from 50 to 90 nm, and the mean width is in the range from 5 to 20 nm.

6. An emulsion according to any one of the preceding claims wherein the metal oxide particles have a median particle volume diameter in dispersion of 23 to 29 nm, preferably 24 to 28 nm.

7. An emulsion according to any one of the preceding claims wherein the metal oxide particles in dispersion have (i) less than 16% by volume of particles having a volume diameter of less than 10 nm below the median volume particle diameter, (ii) less than 30% by volume of particles having a volume diameter of less than 6 nm below the median volume particle diameter, (iii) more than 95% by volume of particles having a volume diameter of less than 55 nm above the median volume particle diameter, (iv) more than 84% by volume of particles having a volume diameter of less than 13 nm above the median volume particle diameter, and (v) more than 70% by volume of particles having a volume diameter of less than 5 nm above the median volume particle diameter.

8. An emulsion according to claim 7 wherein the metal oxide particles in dispersion have (i) less than 16% by volume of particles having a volume diameter of less than 4 nm below the median volume particle diameter, (ii) more than 95% by volume of particles having a volume diameter of less than 30 nm above the median volume particle diameter, and (iii) more than 84% by volume of particles having a volume diameter of less than 7 nm above the median volume particle diameter.

9. An emulsion according to any one of the preceding claims wherein the metal oxide particles have at least one, and preferably all, of (i) an extinction coefficient at 524 nm of less than 1.5 l/g/cm, (ii) an extinction coefficient at 450 nm in the range from 0.2 to 3.0 l/g/cm, (iii) an extinction coefficient at 360 nm in the range from 4.0 to 12.0 l/g/cm, (iv) an extinction coefficient at 308 nm in the range from 35 to 65 l/g/cm, (v) a maximum extinction coefficient in the range from 50 to 80 l/g/cm, and (vi) a λ(max) in the range from 265 to 287 nm.

10. An emulsion according to claim 9 wherein the metal oxide particles have an extinction coefficient at 524 nm in the range from 0.1 to 1.0 l/g/cm.

11. An emulsion according to any one of claims 2 to 10 wherein the aqueous dispersion comprises at least 25% by weight of metal oxide particles.

12. An emulsion according to any one of claims 2 to 11 wherein the aqueous dispersion comprises in the range from 2 to 15% by weight of at least one dispersing agent.

13. An emulsion according to claim 12 wherein the dispersing agent comprises at least one non-ionic surfactant.

14. An emulsion according to any one of the preceding claims comprising in the range from 5 to 50% by weight of at least one non-ionic dispersing agent, calculated with respect to the metal oxide particles.

15. An emulsion according to any one of the preceding claims comprising in the range from 0.1 to 10% by weight of at least one emulsifier.

16. An emulsion according to claim 15 wherein the emulsifier comprises a silicone emulsifier.

17. An emulsion according to any one of the preceding claims comprising less than 10% by weight of any oil other than silicone oil.

18. An emulsion according to any one of the preceding claims wherein silicone oil is the sole oil present.

19. An emulsion according to any one of the preceding claims having a change in whiteness ΔL of less than 3, preferably less than 2.5.

20. An emulsion according to any one of the preceding claims having a whiteness index in the range from 10 to 90%.

21. A process for preparing a water-in-silicone oil emulsion which comprises mixing an aqueous dispersion comprising metal oxide particles having a median particle volume diameter in dispersion in the range from 18 to 32 nm, with a silicone oil under conditions in which a water-in-silicone oil emulsion is formed.

22. A process according to claim 21 wherein the aqueous dispersion is as defined in any one of claims 11 to 13.

23. The use of an aqueous dispersion comprising metal oxide particles having a median particle volume diameter in dispersion in the range from 18 to 32 nm, to form a water-in-silicone oil emulsion.

24. The use of an aqueous dispersion of metal oxide particles having a median particle volume diameter in dispersion in the range from 18 to 32 nm, in the manufacture of an emulsion having improved skin feel.